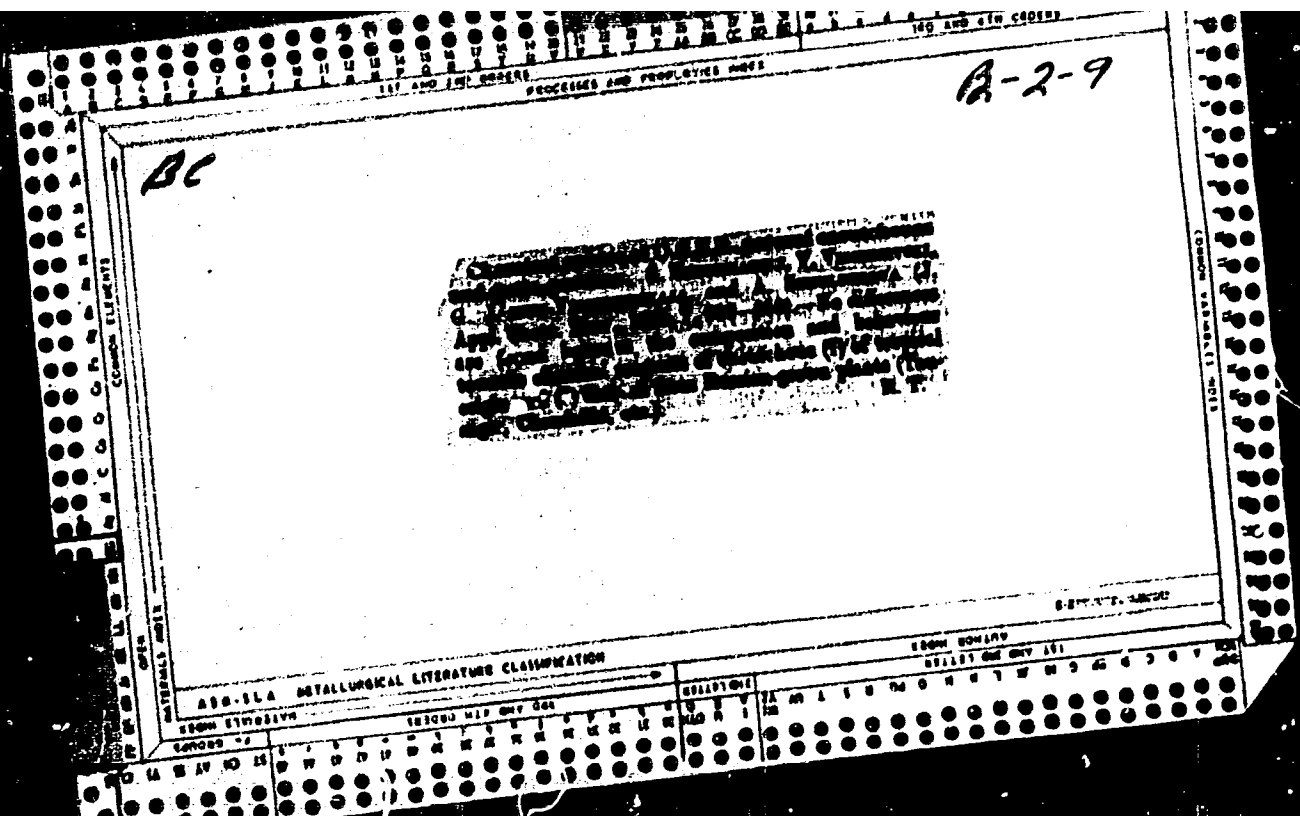


VISHNEVSKIY, T.S., izzh.

Installation of a GTU-25-700 gas turbine in an electric power plant.
Elek. sta. 34 no.6:25-28 Je '63. (MIRA 16:9)
(Gas turbines) (Electric power plants)



VISHNEVSKIY, V. (Baku)

They are going further. Grazhd. av. 22 no.3:2-3 Mr '65. (MIRA 18:7)

1. Nachal'nik politicheskogo otdela Azerbaidzhanskogo upravleniya
grazhdanskoy aviatsii.

VISHNEVSKIY, V.

Efficient and rhytmical beats of the working pulse. Grazhd. av.
19 no. 7:2-3 JI '67. (MIRA 15:8)
(Azerbaija. v. Aeronautics, Commercial)

VISHNEVSKIY, V.

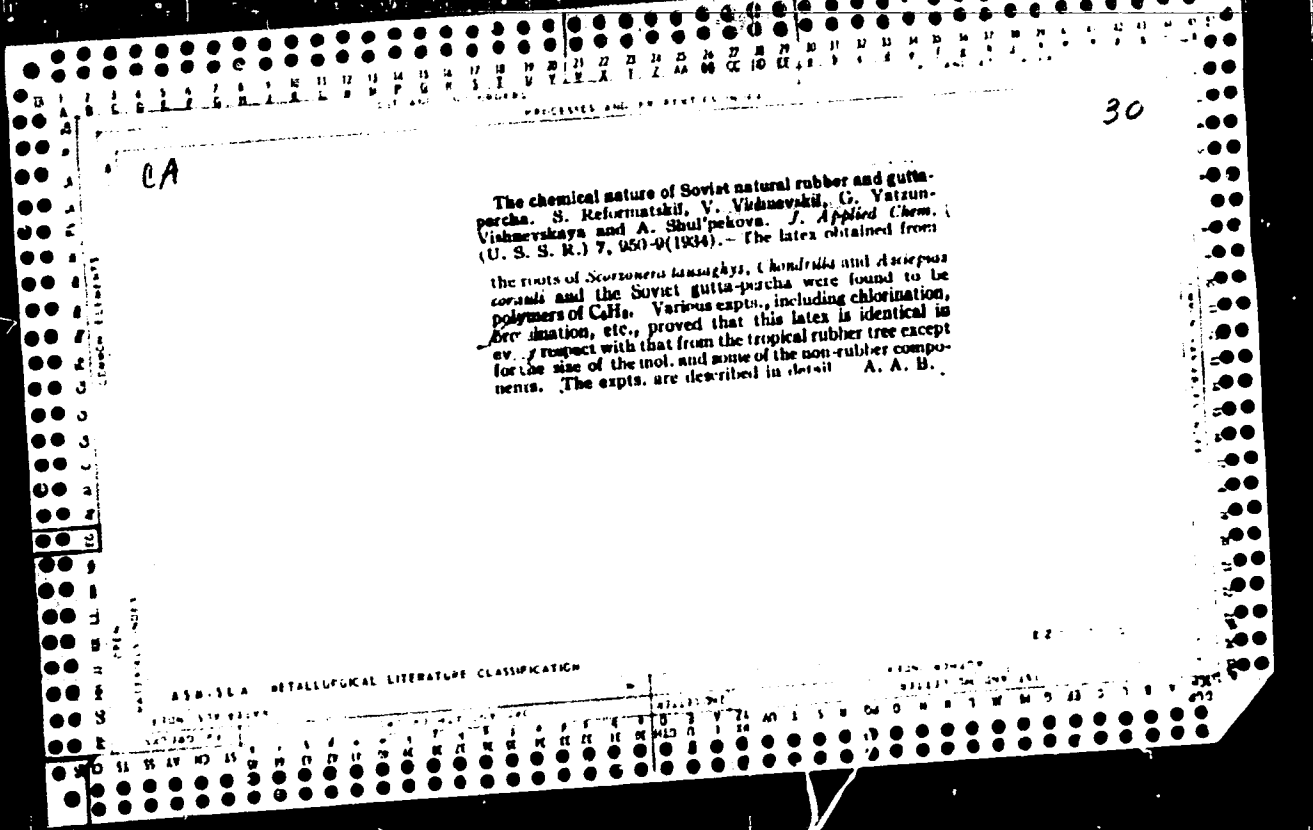
How our trust prepares for construction work under winter conditions. Na stroi.Mosk. 1 no.9:1-5 S '58. (MIRA 11:12)

1. Glavnyy inzhener tresta Mosstroy No.18.
(Moscow--Building--Cold weather conditions)

VISHNEVSKIY, V.

Seminar of ship commanders. Grazhd. av. 15 no.8:5-6 Ag '58.
(MIRA 11:9)

1. Zamestitel' komandira podrazdeleniya po politicheskoy chasti, Baku.
(Navigation (Aeronautics)) (Aeronautics, Commercial)



BUDNIKOV, Mikhail Sergeyevich, doktor tekhn. nauk, prof.;
OBOZNYI, Aleksey Pavlovich, kand. tekhn. nauk, dots.;
VISHNEVYY, V., red.

[Technology and organization of the erection of buildings and structures] Tekhnologiya i organizatsiya vozvedeniya zdaniy i sooruzheniy. Kiev, Budivel'nyk, 1964.
303 p. (MIRA 17:6)

VISHNEVSKIY, V., inzh.

The AVT-500 machine for transporting grapes. Trakt. i sel'khoz mash.
32 no.10:38 0 '62. (MIRA 15:9)
(Viticulture) (Grapes--Transportation)

VISHNEVSKIY, V. instruktor podvodnogo sporta

With an aqualung under the clouds. Nauka i zhizn' 30 no.9:
62-64 S '63. (MIRA 16:10)

VISHNEVSKIY, V., inzh.

A set of propellers is needed. Za rul. 20 no.1:30 Ja '62.

(MIRA 15:2)

(Motorboats)

VISHNEVSKIY, V.A., inzh.

Hose-type mounted PSh-16 sprayer. Trakt.1 sel'khozmasb. 32
no.4:41-42 Ap '62. (MIRA 1584)
(Spraying equipment)

VISHNEVSKIY, V.A., inzh.

Semimounted BDP-41 disc harrow. Trakt. i sel'khoz mash. 32
no.2:34 F '62. (MIRA 15:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sel'skokhoz-
yaystvennogo mashinostroyeniya.
(Harrows)

VISHNEVSKIY, V.A.

Work experience of the brigade of the State Institute for the Design and Planning of Sugar Factories in the construction of Three Kuban factories. Sakh. prom. 35 no. 5:32-34 My '61.
(MIRA 14:5)

1. Giprosakhar.

(Kuban—Sugar industry)

KUNNOV, A. I., Eng.; VISHNEVSKIY, V. A., Eng.

Building

From the experience with finishing the surfaces of dried stucco work and cast plaster of Paris plates with sand-less covering. Gor. khoz. Mosk. 27, No. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

VISHNEVSKIY, V. A.

Building

Treating surfaces of plaster and gypsum boards
with sandless coating. *Biul.stroi.tekh.*, 9, No. 3, 1952
Inzh.; Stroitel'noye Upravleniya No. 10 Tresta
Mosgrazhdanuglezhlstroya

SO: Monthly List of Russian Accessions, Library of Congress, _____ 1953, Uncl.

VISHNEVSKIY, Vladimir Aleksandrovich; FAYERMAN, A.L., red.;
USTINOV, P.I., red.

[Design of district step-down substations] Proektirovanie
raionnykh ponizitel'nykh podstantsii. Moskva, Energiia,
1965. 134 p. (MIRA 18:4)

1. Zastitel' nachal'nika Tekhnicheskogo upravleniya po
ekspluatatsii energosistem Gosudarstvennogo proizvodstven-
nogo komiteta po energetike i elektrifikatsii SSSR (for
Fayerman).

AMANKULOVA, D.S.; VISHNEVSKY, Y.F.; ZABUIKINA, N.G.; ASHLAGINA, Ye.V.

Tracing particle tracks in emulsion piles. Prib.i tekhn. eksp.
no.1:112-113 Ja-F '60. (MIRA 13:6)

1. Institut yadernoy fiziki AN KazSSR.
(Photography, Particle track)

VISHNEVSKIY, V. P.

USSR/Nuclear Physics - Cosmic Rays, 11 May 51
Electron-Nuclear Showers

"Decay of Particles That Generate Electron-Nuclear Showers," S. A. Azimov, V. P. Vishnevskiy, N. I. Khil'ko, Phys-Tech Inst, Acad Sci Uzbek SSR
"Dok Ak Nauk SSSR" Vol LXVIII, No 2, pp 231-234

Authors acknowledge the helpful advice professors V. I. Veksler and N. A. Dobrotin and the useful suggestions of M. I. Podgoretskiy during the setting up of the problem and during treatment of the results. Give the data of measurements of

222159

absorption in water of subject particles, and also for the case of air. Submitted by Acad D. V. Skobel'tsyn 13 Mar 51.

222159

VISHNEVSKIY, V. F.

USSR/Nuclear Physics - Meson Decay 1 Mar 52

234R87
"Electrons Formed During Decay of Fast Mesons,"
S. A. Azimov, V. F. Vishnevskiy, K. P. Ryzhikova,
Phys.-Tech Inst, Acad Sci Uzbek SSR

PA "Dok Ak Nauk SSSR" Vol 83, No 1, pp 55-58

Comparison of the theoretical value of the ratio of the number of decay electrons to the number of mesons (0.2 or 0.14) with the exptl value (8+ 4%) points to the very good agreement of the exptl data with the assumption that the fast mesons transmit to decay electrons 1/3 of their energy

234R87

and not 1/2, as thought earlier. Conclude that mesons do not decay into 2 but rather into 3 particles. Submitted 2 Jan 52 by Acad D. V. Skobal'tsya. Acknowledge the helpful instructions of professors N. A. Dobrotin and V. I. Veksler.

234R87

AZIMOV, S.A.; VISHNEVSKIY, V.F.; RYZHKOVA, K.P.

Electrons formed in the decomposition of fast mesons. Doklady Akad. Nauk
S.S.S.R. 83, 55-8 '52. (MLRA 5:5)
(CA 47 no.19:9807 '53)

VISHNEVSKIY, V. F.

3

U S S R

537.591.3
 5766. On the decay particles producing showers of
 nucleons and electrons. S. A. AZISOV AND V. F.
 VISHNEVSKIY. *Izv. Akad. Nauk SSSR (Ser. Fiz.-Mat.
 No. 1, 83-91 (1953) In Russian.*

Transitions for showers generated in water, and
 absorption mean free paths in water and in air,
 have been studied in a series of measurements at
 3900 m and 950 m. For the latter, the following
 results were obtained: 223 ± 15 (water), $123 \pm$
 6 g cm^{-2} (air). The authors conclude that about
 one-third of shower-producing secondary particles
 decay in air (at average mountain altitudes). [Trans-
 cription of Wataglin's summary (see Abstr. 5747
 above).]

Handwritten initials

Phys-Tech. Inst, AS Uzbek SSR

VISHNEVSKIY, V.F.

VISHNEVSKIY, V.F. - "On the participation of disintegrating particles in the nucleon-cascade process in cosmic rays". Tashkent, 1955. Physicotechnical Inst, Acad Sci Uzbek SSR. (Dissertation for the Degree of Candidate of Physicomathematical Sciences.)

SO: Knizhnaya letopis' No. 46, 12 November 1955. Moscow

VISHNEVSKY, V. F.

THE PRODUCTION OF UNSTABLE PARTICLES IN HIGH-ENERGY NUCLEAR INTERACTIONS AND THEIR
ROLE IN THE NUCLEAR-CASCADE PROCESS

V. F. Vishnevsky

The relationship between the coefficient of interaction of high-energy nuclear-active particles with atomic nuclei μ_n and their absorption coefficient μ_a is

$$\mu_n = \mu_a (1 - \Delta)$$

where Δ is the mean number of secondary nuclear-active particles per interaction.

For air and water (which is close to the former in effective atomic weight) $I/\mu_0 \approx 65 \text{ g/cm}^2$. At the same time measurements for air yield $\mu_n \approx 120 \text{ g/cm}^2$ and on the basis of our data for water we have $\mu_n \approx 170 \text{ g/cm}^2$. Utilizing this relation we can obtain Δ air ≈ 0.5 and Δ water ≈ 0.7 .

Since air and water do not essentially differ as to their effective atomic weights, this difference cannot be caused by the difference in the nature of the interaction of particles with atomic nuclei of water and air. For this reason, taking into account the difference in the density of air and water, the conclusion should be drawn that unstable particles produce a considerable effect on the nuclear-cascade process.

G.T. Zatsepin has shown that the principal contribution to the quantity Δ is made only by those secondary particles that receive the main portion of energy of the

generating particle. Therefore, unstable nuclear-active particles should (in order to produce a substantial effect on the nuclear-cascade process) also obtain energy close to the energy of the generating particle. By utilizing the foregoing data and relationship it may be shown that such unstable particles are produced, on the average, in no less than one quarter of the cases of interaction.

Report presented at the International Cosmic Ray Conference, Moscow, 6-11, July 1959

69089

S/120/60/000/01/033/051

21.5200

AUTHORS: Amankulova, D.S., Vishnevskiy, V.F., Zabudkina, N.G.
and Ashlagina, Ye.V.

TITLE: A Method for Following Particle Tracks in Emulsion Stacks

PERIODICAL: Pribory i tekhnika eksperimenta, 1960, Nr 1,
pp 112 - 113 (USSR)

ABSTRACT: It is often necessary to follow particle tracks (including minimum ionization tracks) from one emulsion layer to another. The present authors have used the following method. An oil immersion objective (900 - 1500 X) was used to inspect a finite length of the track which had to be followed into the next emulsion layer. A drawing of the track was then made on a tracing paper. In addition, a drawing was also made on the same paper of two or three near-black or grey tracks which were also going into the next emulsion. Next, using a low magnification (150-200 X) a drawing was made of a few more (3-5) black or grey tracks. These drawings were chosen so as to occupy the whole field of view. The necessary distances and angles were measured with the aid of an eye-piece scale and a goniometer. It

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E032/E314

A Method for Following Particle Tracks in Emulsion Stacks

is convenient to choose the scale so that under low magnification one division of the eye-piece scale corresponds to 1 mm on the drawing. Using another piece of tracing paper a similar drawing (low magnification) was made of 5-10 tracks in the next emulsion and in the neighbourhood of the exit point of the track under investigation. By superimposing the second track on the first it was possible to choose a position for which the ends of the tracks match in the two drawings. The drawings are then used as a coordinate system relative to which the expected position of the track under investigation in the second emulsion layer can be determined. This is an abridged translation. There are 9 references, 3 of which are Soviet and 6 English.

ASSOCIATION: Institut yadernoy fiziki AN KazSSR (Institute of Nuclear Physics, Ac.Sc. KazSSR)

SUBMITTED: January 2, 1959
Card2/2

4

21013

S/058/61/000/005/021/050
A001/A10124.6900
AUTHOR:Vishnevskiy, V.F.

TITLE:

Generation of unstable particles in high-energy nuclear interactions and their part in the nuclear-cascade process

PERIODICAL:

Referativnyy zhurnal. Fizika, no 5, 1961, 103, abstract 5B455 ("Tr. Mezhdunar. konferentsii po kosmich. lucham, 1959, v 1", Moscow, AN SSSR, 1960, 188 - 197)

TEXT:

The author describes the results of measurements of absorption of nuclear active particles in water and air. Transient effects are considered in detail. Up to energies $E \sim 500$ Bev absorption range in water is larger, by approximately $\frac{1}{2}$ times, than in air. The author asserts that this difference in absorption can be explained only by the assumption that the main fraction of energy of the particle interacting with the nucleus is concentrated not only in stable but also in unstable particles, in approximately 25% cases. At energies $E \leq 100$ Bev such particles are π -mesons, in the energy range $E \sim (10-100)$ Bev, possibly K-mesons, at still higher energies - hyperons. Particles in which energy is concentrated, carry away on the average $\sim 80\%$ energy of the generating particle.

[Abstracter's note: Complete translation.] V. B.

Card 1/1

21421

S/120/61/000/G02/034/042
E210/E594

24.6810

AUTHORS:

Vishnevskiy, V. F. and Yekaterinin, V. V.

TITLE:

Fast Response Electrohydro-Explosion Valve for a
Wilson Chamber

PERIODICAL: Pribory i tekhnika eksperimenta, 1961, No.2, p.170

TEXT: Practical experience has shown that the theoretically satisfactory explosive type valves are unstable, due to leakage currents in the discharge circuit, which flow on precipitation of evaporated electrode metal onto the insulator. The leakage currents can be considerably weakened if the discharge proceeds in a liquid (for instance water). Furthermore, their influence can be completely eliminated if the discharge circuit of the condenser is additionally broken by a gap outside the valve body, where the influence of evaporation of electrode metal can be easily eliminated. This gap can also be utilized for controlling the discharge. The illustration shows a valve, the design of which is based on the above considerations. Opening of the valve is accomplished by the sudden pressure rise resulting from the spark discharge between the electrodes. By
Card 1/3

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Fast Response Electrohydro...

S/120/61/000/002/034/042
E210/E594

making the spark discharge more powerful than is required solely for opening the valve (for which 50 Joule are adequate), it is possible to reduce opening times to less than 5×10^{-4} sec. As the electrodes burn off they have to be replaced or the spark gap has to be adjusted. To reduce stoppages in the operation, the entire discharge head can be replaced. Water cooling is advisable for the purpose of reducing the deposits of evaporated metal in the discharge head. The valve described has been tested for a total of 50 000 operating cycles and is recommended for use in controlling the operation of compensation type valves. It can be conveniently used for ejection of gas from the compensating volume of one or several valves. In the latter case, in addition to the high speed of response, the simultaneous response of several valves is ensured at the same time. The valve can also be usefully applied for bubble chambers. There are 1 figure and 3 references: 2 Soviet and 1 non-Soviet.

ASSOCIATION: Institut yadernoy fiziki AN KazSSR (Institute of Nuclear Physics AS KazSSR)

SUBMITTED: February 26, 1960
Card 2/3

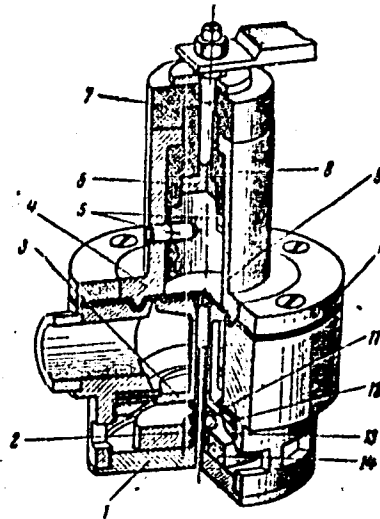
Fast Response Electrohydro...

011021

S/120/61/000/002/034/042
E210/E594

Figure

- 1 - cover with guide rod;
- 2 - spring;
- 3 - valve proper;
- 4 - discharge head body;
- 5 - electrodes;
- 6 - high-voltage supply;
- 7 - insulator;
- 8 - rubber packing;
- 9 - diaphragm;
- 10 - pressure ring;
- 11 - rubber washer;
- 12 - collar;
- 13 - nut;
- 14 - sponge rubber shock absorber.



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ACCESSION NR: AP4012550

S/0056/64/046/001/0232/0242

AUTHORS: Vishnevskiy, V. F.; Tu, Yuan-ts'ai; Moroz, V. I.; Nikitin, A. V.; Troyan, Yu. A.; Chiang, Shao-chun; Chang, Wen-yu; Shakhbazyan, B. A.; Yen, Wu-kuang

TITLE: Possible scheme of production of Λ hyperons via isobars in negative pion -- proton interactions at 7--8 BeV energy

SOURCE: Zhurnal eksper. i teoret. fiz., v. 46, no. 1, 1964, 232-242

TOPIC TAGS: LAMBDA hyperon production, negative pion proton interaction, baryon isobar, meson isobar, baryon isobar decay, meson isobar decay, strange particle production, two particle reaction

ABSTRACT: In view of the failure of the statistical model to explain the two peaks in the momentum distribution of the Λ hyperons produced by negative pions with 7--8 BeV energy observed in Dubna (V. I. Veksler, I. Vrana, Ye. N. Kladnitskaya et al., Preprint, OIYaI, D-806,

Card 1/3

ACCESSION NR: AP4012550

1961; V. A. Belyakov, Wang Yung-tsang, V. I. Veksler et al., ZhETF, v. 44, 431, 1963) an attempt is made to analyze these data on the basis of a kinematic approach that follows from the assumption that the hyperons are produced in two-particle reactions of the type $\pi^+ + p \rightarrow A + B$, where A can be a Λ hyperon or one of the known baryon isobars, and B can be a meson or one of the known meson isobars. This includes, in particular, the case $N_3^+ \rightarrow \Lambda + K$, which is described in detail and discussed by the authors elsewhere (preprint, OIYaI R-1282, 1963). The kinematic analysis of the Λ hyperon is made under the assumption that the transverse momentum of the isobars produced in the π^+p interactions is small. The choice of A and B, together with their decay, is determined by the conservation laws. It is shown that of all the possible reactions of the indicated type, the most probable ones are those where the Λ hyperons are produced directly in π^+p interaction or via the isobars Y_1^+ (1385), N_3^+ (1688), N_1^+ (1922), and Y_0^+ (1815). The relative probabilities of the corresponding Λ -hyperon production channels are estimated. The results of the analysis are in agreement with the experimental data, which

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ACCESSION NR: AP4012550

offer some evidence that the π^-p interactions with strange-particle production is, with noticeable probability, a two-particle reaction whose products can be isobars. "The authors take the opportunity to thank V. I. Veksler for interest and support, to the propane-chamber crew of the OIYAI high-energy laboratory, to V. S. Bareshenkov, D. A. Blokhintser, G. Domokosh, I. Pater and the Chinese physicists working at the Joint Institute for useful discussions, and also V. P. Solomakhina, V. M. Ponomareva, and M. I. Chikvareva for help with the data reduction."

ASSOCIATION: Ob"yedinenny*y" institut yaderny*kh issledovaniy
(Joint Institute of Nuclear Research)

SUBMITTED: 21May63

DATE ACQ: 26Feb64

ENCL: 00

SUB CODE: PH

NO REF SOV: 006

OTHER: 006

Card 3/3

VISHNEVSKIY, V.F.; DU YUAN'-TSAY [Tu Yuan-ts'ai]; MOROZ, V.I.; NIKITIN, A.V.;
TROYAN, Ya.A.; TSZYAN SHAO-TSZYUN' [Chiang Shao-chün];
CHZHAN VEN'-YUY [Chang Wên-yü]; SHAKHBAZYAN, B.A.;
YAN' U-GUAN [Yen U-kuang]

Applicability of an isobaric model simulating the formation of
 Λ -hyperons in $\bar{N}p$ -interactions. IAd. fiz. 1 no.6:1101-1105
Je '65. (MIRA 18:6)

1. Ob'yedinennyy institut yadernykh issledovaniy.

VISHNEVSKIY, V.F.; DU YUAN'-TSAY [Tu Yüan-ts'ai]; MOROZ, V.I.; TROYAN, Yu.A.;
TSZYAN SHAO-TSZYUN' [Chiang Shao-chün]; SHAKHBAZYAN, B.A.;
YAN' U-GUAN [Yen Wu-kuang]

Possible scheme of production of Λ -hyperons via the isobars
in π -p-interactions at energies of 7 - 8 Bev. Zhur. eksper.
i teor. fiz. 46 no.1:232-242 Ja'64. (MIRA 17:2)

1. Ob'yedinenny institut yadernykh issledovaniy.

VISHNEVSKIY, V.I.; GRITS, Yu.A.

Controllable resistor substitutes. Prib. i tekhn. eksp. 8 no.3:
180-181 My-Je '63. (MIRA 16:9)

1. Fiziko-tekhnicheskii institut AN GruzSSR.
(Electric resistors)

VISHNEVSKIY, V.I., inzh.

The SShM-3 planter for use in nurseries. Trakt.i sel'khozmasb. 32
no.9:34-35 8 '62. (MIRA 15:12)
(Planters (Agricultural machinery)) (Nurseries (Horticulture))

VISHNEVSKIY, V. I.

Bee Culture

How we obtained a large honey yield. Pchelovodstvo No. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, May 1952 Uncl.

VISHNEVSKIY, V.L., glav. red.; MILLER, S.V., prof., red.; MATS,
OSHCHEPKOVA, A.N., red.; SAKULIN, I.P., dots., red.;
ROSTIK, M.B., red.

[Materials of the Second Scientific and Practical Conference of Sverdlovsk City and Province Sanitary and Epidemical Station] Materialy Vtoroi nauchno-prakticheskoi konferentsii Sverdlovskoi gorodskoi i oblastnoi sanitarno-epidemiologicheskikh stantsii. Sverdlovsk, 1962. 223 p.
(MIRA 17:5)

1. Nauchno-prakticheskaya konferentsiya Sverdlovskoy gorodskoy i oblastnoy sanitarno-epidemiologicheskikh stantsii. 2d, Sverdlovsk, 1961. 2. Zaveduyushchiy Sverdlovskim oblastnym otdelom zdravookhraniya (for Vishnevskiy).
2. Sverdlovskaya gorodskaya sanitarno-epidemiologicheskaya stantsiya (for Rostik).

VISHNEVSKIY, V.L., prof. [deceased] (Pol'sha)

Parasite cycle in natural bodies of water. Trudy Gel'm. lab. 10:
71-84 '60. (MIRA 13:7)
(Masurian Lakes--Worms, Intestinal and parasitic)

VISHNEVSKIY, V.L., inzh.

Diagrams of cyclic stresses in a rectilinear coordinate system
(σ_{\max} , σ_{\min}). Izv.vys.ucheb.zav.; mashinostr. no.6:81-83 '63.
(MIRA 16:10)

1. Khar'kovskiy inzhenerno-stroitel'nyy institut.

PUSHKAREV, V.I.; SHCHEGOLEVA, A.M.; Primalni uchastiye: DUNDICH, Ye.I.;
VISHNEVSKIY, V.L.; LEYBFREYD, A.Yu.; NIZERNIK, P.A.; RAPUTOVA,
Ye.M.; KHRISTOFOROV, T.A.; YAMPOL'SKIY, L.S., red.; STAKVEL', L.,
red.; BABIL'CHANOVA, G., tekhn. red.

[English - Russian and Russian - English dictionary of building
and architectural terms] Anglo - russkii i russko - angliiskii
arkhitektruvno-stroitel'nyi slovar'. Pod red. L.S.Iampol'skogo.
Kiev, Gos. izd-vo lit-ry po stroit. i arkhit. USSR, 1961. 841 p.
(MIRA 14:8)

(Building--Dictionaries) (Architecture--Dictionaries)
(English language--Dictionaries--Russian)
(Russian language--Dictionaries--English)

VISHNEVSKIY, V.M., kand.istor.nauk; GAYDASHENKO, K.P.; DUDOROV, V.M.;
KLEYMAN, T.Ye.; KRUSHANOV, A.I., kand.istor.nauk; KUCHERYAVENKO,
V.T.; LEVITSKIY, V.L.; OKSTUZ'YAN, D.V.; POLYAKOV, V.Y.;
SAMOKHVALOV, V.A.; SVIN'IN, V.V.; STEPANOVA, L.F.; SUSHKOV, B.A.;
FISHER, Ye.L.; BELYAH, D.P., otv.red.; AVERKIN, B.Z., red.;
ZUSMAN, Ye.I., red.; MAYOROV, V.M., red.; KIREYEVA, T.R.,
vedushchiy red.; BUTOVA, L.A., tekhn.red.

Vladivostok, 1860-1960. Vladivostok, Primorskoe knizhnoe
izd-vo, 1960. 271 p. (MIRA 13:11)
(Vladivostok)

SHVAREV, V.A., kand.istorich.nauk, otv.red.; BELYAYEV, A.A., red.
(g.Vladivostok); BELIKOVA, L.I., kand.istoricheskikh nauk,
red.; VISHNEVSKIY, V.M., kand.istoricheskikh nauk, red.;
KRUSHANOV, A.I., kand.istoricheskikh nauk, red. (g.Vladi-
vostok); LESHKEVICH, V.V., kand.istoricheskikh nauk, red.
(g.Vladivostok); MULENKOV, A.G., kand.istoricheskikh nauk,
red.; SHADRIN, K.M., tekn.red.

[The Far East during forty years of Soviet government]
Dal'nii Vostok za 40 let Sovetskoi vlasti. Komsomol'sk-na-
Amure, 1958. 552 p. (MIRA 12:12)

1. Akademiya nauk SSSR. Sibirskoye otdeleniye. Dal'nevostochny
filial, Vladivostok.
(Soviet Far East)

SHPOTA, G.P.; BOGATSKIY, MA.; VISHNEVSKIY, V.M.

Demineralization of antibiotic solutions of the basic type by
means of sulfocationites. Antibiotiki 7 no.8:714-718 Ag '62.
(MIRA 15:9)

1. Institut fizicheskoy khimii imeni L.V.Pisarzhhevskogo AN UkrSSR
i Zavod meditsinskikh preparatov, Kiyev.
(ION EXCHANGE RESINS) (ANTIBIOTICS)

VISHNEVSKIY, V. N.

Silver Fox

Feeding silver fox whelps on the White Russian Fur Farm. Kar. i zver., 5, No. 1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, June 1952 ~~1953~~, Uncl.

IVANOVA, L.S.; PASHEL'KO, G.M.; BURAKOVA, A.I.; FEDOROVSKAYA, L.V.;
VISHNEVSKIY, V.M.

Study of sorption purification of floricin by means of
ion-exchange resins. Antibiotiki 10 no.10:872-877 0 '65.
(MIRA 18:12)

1. Laboratoriya ionnogo obmena i adsorbtsii (zav. - prof.
D.N. Strazhesko) Instituta fizicheskoy khimii imeni L.V. Pisar-
zhevskogo AN UkrSSR i Kiyevskiy zavod meditsinskikh preparatov.
Submitted Jan. 4, 1965.

PAP, A.M.; VISHNEVSKIY, V.N.; ZINGERMAN, A.Ya.

Morphology and some tectonic characteristics of the Mikashevichi-Zhitkovichi horst in the crystalline basement of White Russia.
Dokl.AN BSSR 6 no.4:243-246 Ap '62. (MIRA 15:4)

1. Institut geologicheskikh nauk AN BSSR i Luninetskaya geologoposkovaya partiya Belglavgeologii. Predstavleno akademikom AN BSSR G.V.Bogomolovym.
(Mikashevichi region—Geology, Structural)
(Zhitkovichi region—Geology, Structural)

VISHNEVSKIY V.M.

Category : USSR/Optics - Optical Methods of Analysis. Instruments

K-7

Abs Jour : Ref Zhur - Fizika, No 2, 1957, No 5189

Author : Grun-Grzhimaylo, S.V., Klimovskaya, L.K. Vishnevskiy, V.M.

Title : Spectral Absorption Curves as a Possible Identification Feature of Garnet

Orig Pub : Mineralog. sb. L'vovsk. geol. o-va, 1954, No 8, 281-294

Abstract : No abstract

Card : 1/1

~~VISHNEVSKIY, V.N.~~
Category : USSR/Optics - Physical Optics

K-5

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 2400

Author : Klimovskaya, K.L., Vishnevskiy, V.N., Skazayevskiy, V.Ye.

Title : On the Glow of Hydrazide of Tet-aminophthalic Acid

Orig Pub : Izv. AN SSSR, ser. fiz. 1954, 18, No 6, 694-695

Abstract : No abstract

Card : 1/1

VISHNEVSKIY, V. N.

USSR/ Physics - Luminescence

Card 1/1 Pub. 43 - 31/62

Authors Klimovskaya, K. L.; Vishnevskiy, V. N.; and Smayevskiy, V. Ye.

Title About the luminescence of hydrazide of triaminophthalic acid

Periodical Izv. AN SSSR. Ser. fiz. 18/6, 694-695, Nov-Dec 1954

Abstract The changes in chemoluminescence intensity were investigated during the oxidation of yellow and white triaminophthalic hydrazide with hydrogen peroxide and potassium ferricyanide in an alkaline medium. The effect of hydrogen peroxide concentrations in the medium of the luminescence intensity is explained. The phenomena observed during the luminescence of the white and yellow hydrazines are described.

Institution: The Iv. Franko State University, L'vov

Submitted :

VISHNEVSKIY, V.N.

Category : USSR/Optics - Physical optics

K-5

Abs Jour : Ref Zhur - Fizika, No 1, 1957 No 2399

Author : Klimovskaya, L.K., Vishnevskiy, V.N.

Title : Concerning Chemiluminescence of Hydrazide of Tri-aminophthalic Acid

Orig Pub : Fiz. zbirnik. L'vivsk. un-t, Fiz. sb. L'vovsk. un-t, 1955, vyp. 1 (6), 5-10

Abstract : An investigation was made of the intensity I and of the glow duration of hydrazide of tri-aminophthalic acid (I) oxidized in an alkaline medium in the presence of $K_3Fe(CN)_6$ (II) and H_2O_2 . Within the limits of the concentrations investigated (I -- $80 \times 10^{-5}M$, $NaOH$ ($1250-4380$) $\times 10^{-5}M$, II -- $(21-171) \times 10^{-5}M$), I increases practically linearly with the concentration of $NaOH$ and of II . The duration of the glow depends on the concentration of the components, each of which has a concentration for which the duration is a maximum. At the $NaOH$ concentration corresponding to the maximum glow duration, the time variation of the glow has a peculiar character: a retardation in the decrease in glow intensity is observed at different time intervals. It was observed that HCl , with which the Cu plates were first treated, cause the already spent solution to glow; here the glow intensity and duration are not less than those of a freshly-prepared one.

Card : 1/1

KLIMOVSKAYA, L.K.; VISHNEVSKIY, V.N.

Chemoluminescence of triaminophthalic acid hydrazide. Nauk. zap. L'viv.
un. 33:5-10 '55. (Hydrazides) (Luminescence) (MIRA 10:6)

VISHNEVSKIY, V.N.

Luminescence of naphthalene and anthracene admixture crystals.
Ukr. fiz. zhur. 1 no.3:294-307 J1-S '56. (MLRA 9:12)

1. L'vivs'kiy derzhavniy universitet imeni I. Franka ta Institut
fiziki Akademii nauk URSR.

(Luminescence--Spectra) (Anthracene--Spectra)
(Naphthalene--Spectra)

VISHNEVSKIY, V.N.

Plot ✓ The determination of the length of the diffusion displac-
ment of the excitons in the CaF_2 crystal. By using
the method of the initial stages of illumination
the dependence of the intensity of the fluorescence
excitons on the length of the diffusion displacement
and II. The intensity of fluorescence was detd. as a
function of the wave length of the exciting light during the
initial stages of illumination. Based upon the results ob-
tained the length of the diffusion displacement of the excitons calcd.
for II was 0.10 to 0.15 μ , and for I 0.20 to 0.30 μ . W. J.

Plot
18T

VISHNEVSKIY, V.N.

Absolute photoluminescence yield of anthracene and
naphthalene crystals

A crystal was irradiated with a 60 kV x-ray beam in a vacuum chamber. The luminescence was measured with a photomultiplier tube. The results are given in Table 1.

The following data were obtained on the same plate. The following data were obtained on the same plate. The following data were obtained on the same plate. The following data were obtained on the same plate.

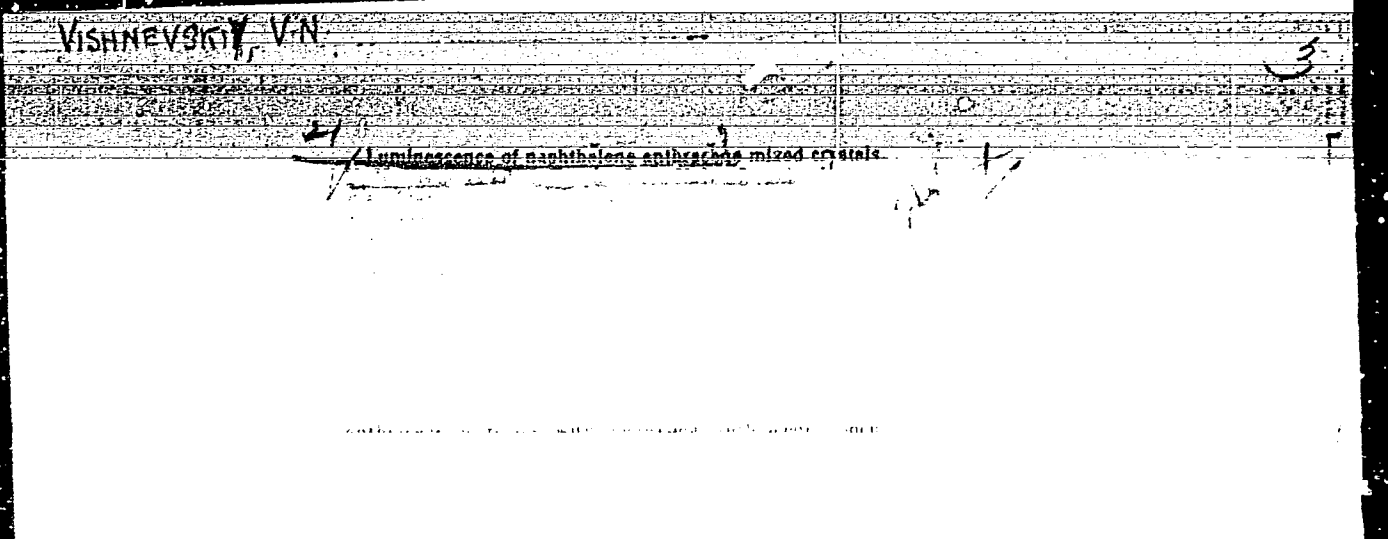
2

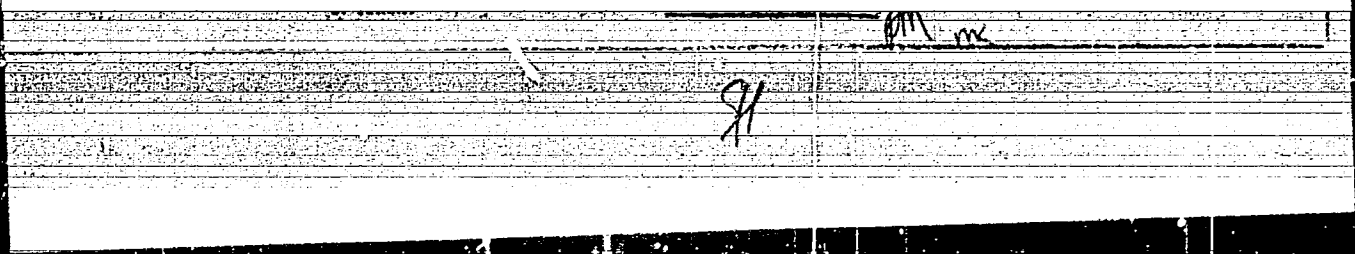
2/11/80

PM

LFH

Inst. Phys. AS Ukr. SSR





USSR / Optics

Vishnevskiy, V.N.

K

Abs Jour: Referat Zhur-Fizika, 1957, No 4, 10375

Author : Borisov, M.D., Vishnevskiy, V.N.
Inst : Institute of Physics, Academy of Sciences, Ukraine, SSR.
Title : Absolute Yield of Photoluminescence of Crystals of Anthracene and Naphthalene.

Orig Pub: Izv. AN SSSR, ser. fiz., 1956, 20, No 4, 502-504

Abstract: The measurement of the absolute yields of photoluminescence were carried out in a photometric sphere with the radiation spectrum being photographed on a spectrophotometer. The luminescence spectrum of the thick crystal of anthracene depends strongly on the temperature. At 20° one observes a broad band at 4450 A. Its intensity at -180° diminishes sharply. At the same time, there is a sharp increase in the intensity in the band at 4225 A. But the area under these curves does not change. The intensity of radiation of thick (1 mm) and thin (3 microns) crystals do not coincide (at 20° the band at 4450 A in the spectrum of the thin crystal is weaker

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001860110001-3

Card : 1/2

USSR / Optics

K

Abs Jour: Referat Zhur-Fizika, 1957, No 4, 10375

than the band at 4225 Å) but the yield is the same. It is concluded that in anthracene the role of the radiationless processes is small. The luminescence energy absorbed by the crystal is in position to become reradiated in the region of longer wavelengths, where the absorption is practically absent. The technical and quantum yields of luminescence in anthracene are independent of the temperature ($W_T = 0.68$ -- 0.70 and $W_K = 0.80$ -- 0.83). The naphthalene crystals do not display the phenomenon of transformation of the light of the reabsorption into radiation energy at lower frequencies. Therefore at room temperature W_T and W_K are small (0.37 and 0.42). At 180° , $W_T = 0.80$ and $W_K = 0.90$.

Card : 2/2

VISHNEVSKIY, V. N.
USSR/Physical Chem. Crystals

B-5

Abs Jour : Ref Zhur - Khimiya, No 7, 1957, 22142

Author : V. N. Vishnevskiy

Inst : Not given

Title : The luminescence of mixed crystals of naphthalene-anthracene.

Orig Pub : Ukr. fiz. Zh. 1956, 1, No 3, 294-307 (Ukr. rez. russ.)

Abstract : The distribution of energy in the spectrum of luminescence is measured at 90 and 300°K and so are absolute quantum yields q of the luminescence of mixed crystals of naphthalene (I) -anthracene (II), containing $8 \cdot 10^{-5}$ - $5 \cdot 10^{-1}$ mol % II. With the increase of the concentration of II, the q of luminosity II grows and the q of luminosity I lessens in the same concentration area. At very low and high concentrations of II, q does not depend on concentration. At 90° q of the mixed crystal, containing $3 \cdot 10^{-1}$ - $5 \cdot 10^{-1}$ mol % II is equal to 0.85, i.e. it is near the q of crystal II at 300° (0.90). In conclusion, crystal II in scintillating meters could be replaced by a cooled mixed crystal I-II. Experimental curves showing the dependence of q on the concentration of II conform with the theoretical ones, and this confirms the theory of localized stimulations.

Card 1/1

-55-

VISHNEVSKIY, V. N. Cand Phys-Math Sci -- (diss) "Study of the luminescence of
molecular ^{Admired} ~~impurity~~ crystals of naphthalene-anthracene." L'vov, 1957. 10 pp with
graphs 19 cm. (Min of Higher Education UkSSR. L'vov State Univ im Ivan Franko),
100 copies. (KL, 15-57, 104)

-2-

VISHNEVSKIY, V.N.

BORISOV, M.D.; VISHNEVSKIY, V.N. [Vishnevs'kyi, V.N.]

Using magnesium oxide as a diffuse reflector in spectrophotometric research [In Ukrainian with summary in English]. Ukr.fiz.zhur. 3 no.1:88-94 Ja-F '58. (MIRA 11:4)

1. Kharkivs'kiy fiziko-tekhnichniy institut AN URSR (for Borisov).
2. L'vivs'kiy derzhavniy universitet (for Vishnevskiy).
(Magnesia) (Spectrophotometry)

VISHNEVSKIY, V.N. [Vyshnevs'kyi, V.N.]; KLIMOVSKAYA, L.K. [Klymovs'ka, L.K.]

Study of absorption spectra of microcrystals [in Ukrainian with
summary in English]. Ukr. fiz. zhur. 3 no.2:239-245 Mr-Ap '58.
(MIRA 11:6)

L'vivskiy derzhuniversitet im. I. Franka.
(Absorption spectra) (Crystals--Spectra)

VISHNEVSKIY, V.N. [Vishnevs'kyi, V.N.]

Accounting for the reabsorption of impurity luminescence in
naphthalene-anthracene crystals [with summary in English].
Ukr. fiz. zhur. 3 no.3:313-323 My-Je '58. (MIRA 11:10)

1. L'vovskiy gosudarstvennyy universitet im. I. Franko.
(Luminescence) (Naphthalene) (Anthracene)

BELIKOVICH, B.A. [Belikovych, B.O.]; VISHNEVSKIY, V.N. [Vishnevs'kyi, V.N.];
LYSKOVICH, A.B. [Lyskovych, O.B.]; PIDZYRAYLO, N.S. [Pidzyraylo, M.S.]

Investigation of the distribution of an activator in NaI - Tl
crystals [with summary in English]. Ukr. fiz. zhur. 4 no.1:108-115
Ja-F '59. (MIRA 12:6)

L'vovskiy gosudarstvennyy universitet im. Iv. Franko.
(Sodium iodide crystals) (Thallium)

VISHNEVSKIY, V.N. [Vyshnevs'kyi, V.N.]; PIDZYRAYLO, N.S. [Pidzyrilo, M.S.]

Absolute quantum yield of the photoluminescence of a synthetic ruby
at room temperature. Ukr. fiz. zhur. 5 no. 5:629-633 8-0 '60.

(MIRA 14:4)

1. L'vovskiy gosudarstvennyy universitet.
(R:ib:es) (Luminescence)

VISHNEVSKIY, V.N.; ROMANYUK, N.A.

Monochromator with an ammonium dihydrophosphate prism. Opt. i spektr.
8 no.5:736-738 My '60. (MIRA 13:9)

(Ammonium phosphate crystals)

(Monochromators)

VISHNEVSKIY, V.N. [Vyshnevs'kyi, V.N.]; LYSKOVICH, A.B. [Lyskovych, O.B.];
PIDZYRAILO, N.S. [Pidzyrailo, M.S.]

Stability of the reflecting power of magnesium oxide over a
wide temperature range. Ukr. fiz. zhur. 6 no.2:213-215
Mr-Ap '61. (MIRA 14:6)

1. L'vovskiy gosudarstvennyy universitet im. Ivana Franko.
(Magnesium oxide—Optical properties)

42960

S/058/62/000/011/019/061
A062/A101

1473500

AUTHORS: Vishnevs'kiy, V. N., Pidziraylo, M. S.

TITLE: Investigation of the efficiency of a luminescent synthetic ruby at room temperature

PERIODICAL: Referativnyy zhurnal, Fizika, no. 11, 1962, 76, abstract 11V514
("Dopovidy ta povidoml. L'vivs'k. un-t", 1961, no. 9, part 2, 43 - 45, Ukrainian)TEXT: The photoluminescence quantum yield of a synthetic ruby (having a chrome oxide concentration evaluated as 0.5%) is determined by two independent methods: 1) by comparing the intensity of the luminescence excited by the visible radiation of a mercury lamp CBДШ-1000-3 (SVDSH-100-3) ($\lambda = 546$ and $577 \text{ m}\mu$) with the intensity of this radiation diffused by a layer of magnesium oxide, and 2) by comparing the intensity of the ruby luminescence ($\lambda_{\text{exc}} = 366 \text{ m}\mu$) with the luminescence intensity of single crystals of anthracene-luminophore of a known quantum yield. The average values of the photoluminescence yield, determined by

Card 1/2

Investigation of the efficiency of...

S/058/62/000/011/019/061
A062/A101

these methods, are equal to 0.70 ± 0.05 and 0.76 ± 0.09 , respectively.

P. Feofilov

[Abstracter's note: Complete translation]

Card 2/2

ACCESSION NR: AT4016317 S/0000/62/000/000/0342/0345

AUTHOR: Vishnevskiy, V.N.; Ly*skovich, A.D.; Pidzy*raylo, N.S.

TITLE: Luminescent properties of NaI - Tl crystallophosphors

SOURCE: Vses. soveshch. po fiz. shchelochnogaloidn. kristallov. 2d, Riga, 1961. Trudy*. Fiz. shchelochnogaloidn. kristallov (Physics of alkali halide crystals). Riga, 1962, 342-345

TOPIC TAGS: luminescence, fluorescence, phosphor, crystalline phosphor, alkali halide, alkali halide fluorescence, sodium iodide

ABSTRACT: NaI-crystals containing 0.2-1.6% Tl were examined spectrophotometrically using a Cs¹³⁷ source for γ -radiation. The Tl content was determined by fluorescence studies and absorption measurements. In order to measure the energy distribution in the photoluminescence spectrum produced by the irradiated crystal, and the magnitude of the absolute quantum yield of photoluminescence, the 1x5x10 mm crystal specimen was fastened in the center of a 50 mm diameter, hollow, separable ball whose inside surface was coated with a 2 mm thick layer of MgO. The dried and hermetically sealed ball with the

Card 1/2

ACCESSION NR: AT4016317

crystal was placed in an assembly consisting of an ISP-22 spectrograph, a mercury vapor lamp, a system of filters and a photoelectron multiplier. The spectrum was found to consist of an intensive, wide band with a maximum at about 4200 A and a less distinct wide band with a maximum at about 3350 A. The absolute quantum yield remained unchanged at 0.71 ± 0.08 within the concentration range of $2, 3 \cdot 10^{-4}$ mol Tl/mol NaI, luminescence extinction setting in when the ratio was greater. Orig. art. has: 1 figure, 1 formula, and 2 graphs.

ASSOCIATION: L'vovskiy gosudarstvennyy universitet im. I. Franko (Lvov State University)

SUBMITTED: 00

DATE ACQ: 06Mar64

ENCL: 00

SUB CODE: IC, GP

NO REF SOV: 004

OTHER: 000

Card 2/2

VISHNEVSKIY, V.N. [Vyshnevs'kyi, V.N.]; LYSKOVICH, A.B. [Lyskovych, O.B.];
PIDZYRAYLO, N.S. [Pidzyrailo, M.S.]; CHORNIY, Z.P. [Chornii, Z.P.]

Roentgenoluminescence of NaI(Tl) crystal phosphors. Ukr. fiz.
zhur. 7 no.10:1101-1105 0 '62. (MIRA 16:1)

1. L'vovskiy gosudarstvennyy universitet im. Iv.Franko.
(Phosphors)

VISHNEVSKIY, V.N. [Vyshnevs'kiy, V.N.]; PIDZYRAYLO, N.S. [Pidzyrailo, M.S.]

Simple photoelectric attachment to the KSA-1 spectrograph. (MIRA 16:1)
Ukr. fiz. zhur. 7 no.10:1106-1109 0 '62.

1. L'vovskiy gosudarstvennyy universitet im. Iv.Franko.
(Spectrograph)

VISHNEVSKIY, V.N. [Vyshnevs'kiy, V.N.]; LYSKOVICH, A.B. [Lyskovych, O.B.];
PIDZYRAYLO, N.S. [Pidzyrailo, M.S.]; DATSISHIN, A.M. [Datsyshyn, A.M.]

Photoluminescence excitation spectra of NaI(Tl) crystals. Ukr.
fiz. zhur. 7 no.10:1127-1128 0 '62. (MIRA 16:1)

1. L'vovskiy gosudarstvennyy universitet im. I. Franko.
(Phosphors) (Spectrum analysis)

VISHNEVSKIY, V.N. [Vyshnevs'kyi, V.N.]; LYSKOVICH, A.B. [Lyskovych, O.B.];
PIDZYRAYLO, N.S. [Pidzyrailo, M.S.]; CHORNIY, Z.P. [Chorni, Z.P.]

Dependence of the roentgenoluminescence of NaI-Tl crystals on the
temperature and activator content. Ukr. Fiz. zhur. 7 no.12:1292-1297
D '62. (MIRA 15:12)

1. L'vovskiy gosudarstvennyy universitet im. Iv.Franko.
(X-ray spectroscopy) (Sodium iodide crystals) (Luminescence)

VISHNEVSKIY, V.N.; PIDZYRAYLO, N.S.

Photoelectric attachment to the ISP-22 spectrograph. Zav.lab.
28 no.5:625-627 '62. (MIRA 15:6)

1. L'vovskiy gosudarstvennyy universitet imeni Ivana Franko.
(Spectrograph)

VISHNEVSKIY, V.N., [Vyshnevskiy, V.N.]; GNYP, R.G. [Hnypp, R.H.];
STEFANSKIY, I.V. [Stefanskyy, I.V.]

Dispersion of NaI - Tl single crystals. Ukr. fiz. zhur. 8
no.5:583-586 My '63. (MIRA 16:8)

1. L'vovskiy gosudarstvennyy universitet im. Franko.

VISHNEVSKIY, V.N. [Vyshnevs'kyi, V.N.]; PIDZYRAYLO, N.S. [Pidzyrailo, M.S.]

Dependence of the photoluminescence of anthracene vapors
on the concentration and temperature. Ukr. fiz. zhur. 8
no.5:587-590 My '63. (MIRA 16:8)

1. L'vovskiy gosudarstvennyy universitet im. Franko.

ACCESSION NR: AP4006836

S/0120/63/000/006/0154/0155

AUTHOR: Vishnevskiy, V. N.; Shibisty*y, A. N.

TITLE: Photoelectric meter for measuring luminescence polarization

SOURCE: Priboiy* i tekhnika eksperimenta, 8 nō. 6, 1963, 154-155

TOPIC TAGS: polarization meter, luminescence polarization, photoelectric polarization meter

ABSTRACT: A photoelectric device for measuring the anisotropy of luminescence is described. Its advantages over similar devices are that no preliminary calibration is required, that the degree of polarization of luminescence can be measured directly, and that the light fluxes from which the degree of polarization is determined are received and amplified by one channel. The accuracy in measuring the degree of polarization is 1-2% of the measured quantity. A block diagram of the device is given, and the measuring technique is described. Orig. art. has: 1 figure.

Card 1/2

ACCESSION NR: AP4006836

ASSOCIATION: L'vovskiy gosudarstvennyy universitet (Lvov State University)

SUBMITTED: 12Jan63

DATE ACQ: 24Jan64

ENCL: 00

SUB CODE: PH

NO REF SOV: 005

OTHER: 002

Card 2/2

VISHNEVSKIY, V.N. [Vyshnevs'kyi, V.N.]; TURKEVICH, V.V. [Turkevych, V.V.]

Nature of certain impurities in NaI-Tl crystals grown by
Kiropulos' method. Ukr. fiz. zhur. 8 no.7:768-771 J1 '63. (MIRA 16:8)

1. L'vovskiy gosudarstvennyy universitet im. Franko.
(Sodium iodine crystals—Absorption spectra)

GLAUBERMAN, A.Yu. [Hlauberman, A.IU.], prof., otv. red.; RYBALKA, V.V., red.; SFN'KIV, M.T., dots., red.; VISHNEVSKIY, V.N., [Vyshnevs'kyi, V.N.], dots., red.; YUKHNOVSKIY, I.R. [Iukhnovs'kyi, I.R.], dots., red.; PALYUKH, B.M., dots., red.; KVITKO, I.S., red.

[Problems in solid state physics] Pytannia fizyky tverdoho tila. L'viv, Vyd-vo L'vivs'koho univ., 1964. 117 p.
(MIRA 17:11)

1. Lvov. Universytet.

L 33169-66 EWT(1) IJP(c) NW/GG

ACC NR: AR6016215

SOURCE CODE: UR/0058/65/000/011/DO67/DO67

AUTHOR: Vishnevskiy, V. N.; Gryp, R. G.; Stefanskiy, I. V.

60
B

TITLE: Investigation of the refractivity of single crystals NaI-Tl

SOURCE: Ref. zh. Fizika, Abs. 11D517

REF SOURCE: Tr. Komis. po spektroskopii. AN SSSR, t. 3, vyp. 1, 1964, 529-537

TOPIC TAGS: sodium compound, refractive index, activated crystal, crystal detector, light dispersion, temperature dependence

ABSTRACT: The authors investigated the dispersion of the refractive index of single crystals of NaI-Tl (activator concentration from 7.9×10^{-7} to 4.7×10^{-5} g Tl/g NaI). The dispersion curves were obtained with the aid of the diffraction method of I. V. Obreimov. For the crystals most commonly used (activator concentration $c \approx 3.6 \times 10^{-5}$ g Tl/g NaI), the dependence of the dispersion curve on the temperature was investigated. [Translation of abstract]

SUB CODE: 20 /

LS

Card 1/1

BRILINSKIY, M.I. [Brylyns'kyi, M.I.]; VISHNEVSKIY, V.N. [Vyshnevs'kyi, V. n.]; PIDZYRAYLO, N.S. [Pidzyrallo, M.S.]

Temperature and concentration dependence of the quantum yield of photoluminescence of NaI - Tl crystal phosphors. Ukr. fiz. zhur. 9 no.1:59-65 Ja '64. (MIRA 17:3)

1. L'vovskiy gosudarstvennyy universitet im. Iv. Franko.

ACCESSION NR: APOK0047

S 0051/05/013/003/0517_0521

AUTHOR: Vishnysvskiy, V. N., Izzyraylo, M. G., Solov'yeva, Yu. N.

TITLE: Temperature dependence of the absorption of synthetic ruby in the region of the resonant doublet

SOURCE: Optika i spektroskopiya, v. 11, no. 3, 1975, 217-220

TOPIC TAGS: ruby, ruby laser, synthetic ruby, absorption, temperature dependence

ABSTRACT: The purpose of the investigation was to determine the temperature dependence of the light absorption of synthetic ruby for both components of the resonant doublet (λ_1 at $\lambda = 0.694 \mu$ and λ_2 at $\lambda = 0.692 \mu$) over an appreciable temperature interval. The absorption spectra were recorded with a photoelectric spectrophotometer system based on the F-10 spectrograph and UM-1 monochromator.

L 36330-65
ACCESSION NR: AP5006443

ENCLOSURE: 01 0

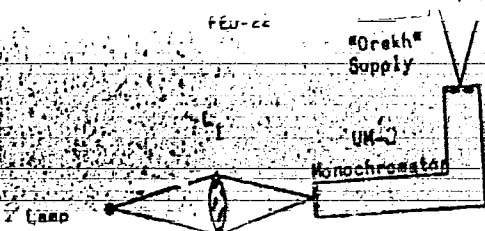


Fig. 1. Diagram of set-up for the investigation of the absorptivity of ruby in the region of the resonant doublet.

Card 3/3 1

L 18886-66 EWT(1)/T IJP(e)
ACC NR: AP6007G18

SOURCE CODE: UR/0051/66/020/002/0357/0359

AUTHOR: Vishnevskiy, V. N.; Stefanskiy, I. V.

33
B

ORG: none

TITLE: Effect of temperature on the dispersion of refractivity in ADP and KDP single crystals

SOURCE: Optika i spektroskopiya, v. 20, no. 2, 1966, 357-369

TOPIC TAGS: ammonium compound, potassium compound, coherent radiation, single crystal, refractive index, optic crystal

ABSTRACT: I. V. Obreimov's diffraction method was used for studying birefringence in ADP and KDP single crystals in the 250-750 mμ spectral range. Dispersion of the indices of refraction for ordinary and extraordinary waves was measured in ADP at temperatures of +20, -50, and -196°C, and in KDP at temperatures from -196 to +200°C. It is found that dispersion of both indices of refraction in an ADP single crystal varies with the temperature of the specimen in the ultraviolet region. This is probably due to a shift in the corresponding absorption band to shorter wavelengths

UDC: 535.32:548.0.096

Card 1/2

L 18886-66

ACC NR: AP6007018

as the crystal is cooled. An analysis of dispersion curves for both indices of refraction in a KDP single crystal shows that refractivity is more dependent on temperature than either dispersion of refractivity or dispersion of birefringence. Absorption bands in the vacuum ultraviolet region are the main factor in dispersion relationships for both ordinary and extraordinary waves in the KDP crystal. Calculations show that the maximum of the band for the ordinary wave should lie in the neighborhood of 985 angstroms, while that for the extraordinary wave should be at about 836 angstroms. Orig. art. has: 2 figures, 1 table. [14]

SUB CODE: 20/

SUBM DATE: 03Jun65/

ORIG REF: 002/

OTH REF: 006

ATD PRESS: 4217

Card 2/2 m c

ACC NR: AP7003615

SOURCE CODE: UR/0185/66/011/012/1345/1349

AUTHOR: Vyshnevs'kyy, V. N. --Vishnevskiy, V. N.; Kulyk, L. M. --Kulik, L. N.;
Romanyuk, M. O. --Romanyk, N. A.

ORG: Lvov State University im. I. Franko (L'vivs'kyy derzhuniversytet)

TITLE: Structure of the fundamental absorption bands of mixed potassium chloride
and potassium bromide single crystals

SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 11, no. 12, 1966, 1345-1349

TOPIC TAGS: absorption band, potassium chloride crystal, potassium bromide
crystal, mixed crystal, ionic crystal, ion interaction

ABSTRACT: An investigation was made of the reflection spectra of a system of
mixed potassium chloride and potassium bromide single crystals in the region
2000-900 Å. The intensity of the long-wave fundamental absorption bands of "pure"
and mixed crystals was also estimated. The results of the investigation are com-
pared with the conclusions of the existing models of interaction of ionic crystals with
radiation. Orig. art. has: 2 figures and 1 table. [Authors' abstract] [NT]
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VISHNEVSKIY, V.N. [Vyshnevs'kyi, V.N.]; PIDZYRAYLO, M.S. [Pidzrayilo, M.S.]

Photoluminescence spectra and photoluminescence excitation spectra of NaI-Tl crystal phosphors at the temperatures of liquid hydrogen and helium. Ukr. fiz. zhur. 10 no.7:771-777 (MIRA 18:8) J1 '65.

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crystals activated with oxygen-containing impurities.
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AUTHORS: Vyshnevs'kyy, V. N. (Vishnevskiy, V. N.); Pidzyraylo, M. S. (Pidzyraylo, N. S.) 2/44/85 71, 55 56 44

TITLE: Photoluminescence and photoluminescence excitation spectra of crystal NaI-Tl phosphors at liquid hydrogen and helium temperatures 27

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TOPIC TAGS: photoluminescence, crystal phosphor, excitation spectrum, scintillator, sodium compound

ABSTRACT: The photoluminescence and photoluminescence excitation spectra of NaI-Tl crystal phosphors were investigated at liquid hydrogen and helium temperatures. The activator contents were 10^{-6} -- 1.2×10^{-3} mole Tl/mole NaI. Single-crystal samples were cut from homogeneous single crystals in a desiccator and under atmospheric conditions. The spectra were investigated in the range 220 -- 600 nm using a DMR-4 monochromator, were normalized with the aid of

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sodium salicylate, and corrected for the spectral sensitivity of the setup. Two intense (at 438 and 330 nm) and one weak (at 374 nm) Tl luminescence bands were observed. The 374-nm band is due to an iodine excess in the crystals and its intensity differs from crystal to crystal. Both intense bands are complex and their half-width depends on the wavelength of the exciting radiation. Each intense luminescence band has its own characteristic excitation spectrum. The excitation spectra have a number of bands with which there appears short and long-wavelength luminescence. In these cases there is considerable overlap of excitation bands or energy migration from some centers to others. Investigations at various temperatures indicate that in NaI-Tl the population of the levels is strongly temperature dependent. Analysis of the excitation spectra indicates that luminescence connected with the $^3P_2 \rightarrow ^1S_0$ transition should be observed in the short wavelength luminescence band. The authors thank UkrSSR Academician A. F. Prykhot'ko, M. T. Shpak, and A. V. Solov'yev for interest in the investigations and for making it possible to carry out the experiments at low temperatures. Orig. art. has: 3 figures

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